

WHAT IS CLAIMED IS:

1. A system for producing an image of a patient, comprising:  
a source of fluid medium;  
a pressurizing unit operably associated with the source of fluid medium for injecting the fluid medium into the patient;  
an imaging unit providing an internal image of the patient based upon a condition of the fluid medium in the patient; and  
a control unit adapted to adjust the condition of the fluid medium injected into the patient.
2. The system of Claim 1 wherein the fluid medium is a contrast medium.
3. The system of Claim 2 wherein the contrast medium is ultrasound contrast.
4. The system of Claim 1 wherein the condition of the fluid medium in the patient corresponds to at least one parameter selected from the group of concentration, flow rate and volume.
5. The system of Claim 1 wherein the condition of the fluid medium is concentration.
6. The system of Claim 1 wherein the pressurizing unit is adapted to inject at least one bolus of the fluid medium into the patient.
7. The system of Claim 1, further comprising an electronic interface in communication with at least one of the pressurizing unit and the imaging unit.
8. The system of Claim 7, further comprising a hospital information system operably associated with the electronic interface.

9. The system of Claim 1, further comprising a concentration measurement device operable to measure the concentration of the fluid medium

10. The system of Claim 1, further comprising a source of diluent operably associated with the pressurizing unit.

11. The system of Claim 1 wherein the pressurizing unit comprises a pump.

12. The system of Claim 10, further comprising a mixer for mixing the fluid medium and the diluent.

13. The system of Claim 1, further comprising a fluid path disposed between the pressurizing unit and the patient.

14. The system of Claim 13, further comprising a filter disposed in the fluid path.

15. The system of Claim 13, further comprising a back-flow valve disposed in the fluid path.

16. The system of Claim 13, further comprising a fluid assurance detector in the fluid path.

17. A method for controlling an imaging procedure, comprising:  
pressurizing a fluid medium for injection into the patient;  
generating an internal image of the patient based upon a condition of the fluid medium injected into the patient; and  
adjusting the condition of the fluid medium injected into the patient.

18. The method of Claim 17 wherein the condition is concentration.

19. The method of Claim 17 wherein the fluid medium comprises ultrasound contrast.

20. A system for producing an image of a patient, comprising:

a source of contrast medium;

a pressurizing unit operably associated with the source of contrast medium for injecting the contrast medium into the patient;

an imaging unit providing an internal image of the patient based upon a condition of the contrast medium in the patient;

a control unit adapted to adjust the condition of the contrast medium injected into the patient;

an electronic interface in communication with at least one of the pressurizing unit and the imaging unit; and

a fluid path disposed between the pressurizing unit and the patient.